

ALLISON (C.C.)

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CAUSES AND TREATMENT

— OF —

Rectal Fistulæ

BY

CHAS. C. ALLISON, M. D.,

Professor of Rectal and Genito-Urinary Surgery,
Omaha Medical College.

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Causes and Treatment of Rectal Fistulæ.

By CHARLES C. ALLISON, M. D.

Professor of Rectal and Genito-Urinary Surgery,
Omaha Medical College.

The anatomical relations of rectal fistulæ depend largely upon the location of the preliminary abscess. The *marginal* abscess is the most frequent of the three varieties, and when not seen early and managed carefully, it results in a subcutaneous fistula, which, when complete, usually enters the bowel below the external sphincter.

The *ischio-rectal abscess* proper takes origin in the space surrounding the rectum, limited above by the levator ani muscle, and laterally by the pelvic bones. The internal opening, when the resulting fistulæ is complete enters the bowel above the sphincter muscles.

The *superior-pelvic-rectal* abscess originates in the space contained between the superior aponeurosis of the levator ani muscle below, the rectum internally, the peritoneum above, and the pelvic walls laterally.

This region as well as the ischio-rectal space contains an abundance of cellular tissue and fat, by which the blood vessels

are supported, and the movements and expansion of the rectum facilitated. It communicates with the gluteal region through the sciatic notch, and is continuous with the sub-peritoneal cellular tissue, lining the pelvic cavity, while running through the space are the hemorrhoidal and vesical arteries and veins, branches of sacral plexus of nerves and inferior hypogastric plexus of the sympathetic.

In this dependent position, circulation is sluggish, the vessels are not supported by muscular planes as in other regions of the body, and in the plethoric subject with an abundance of effete material in the blood, seeking elimination through clogged excretory organs, we have the predisposing cause of an abscess.

Add to this constipation with improperly administered enemas, or an abrasion of marginal epithelium by an illy chosen detergent, and we can at once discover a pathway for the germ which finds a splendid field for the formation of an abscess. Moreover, in the individual with a constitutional dyscrasia, faulty nutrition and emaciation, we find absorption of the fat which supports the vessels, and a comparatively small trauma will produce rapid cell death, and form the nucleus of an abscess.

DIAGNOSIS:—The marginal and ischio-rectal abscesses present the usual symptoms of inflammation and will be recognized in their incipiency, but the superior-pelvic-rectal abscess is attended by atypical symptoms in its early history, although prompt interpretation of the primary signs of the trouble is desirable on account of the grave effects produced by extensive disease in this space.

The early symptoms are more easily recognized where we bear in mind the landmarks and contents of the space. Lumbar and femoral pain are caused by pressure upon sacral plexus. Vesical symptoms follow direct pressure upon, or the involvement of nerves supplying the bladder. Pain in the region of the anterior superior spine of the ilium, or at the umbilicus accounted for by pressure upon the inferior hypogastric plexus of the sympathetic.

Add to this rigor, fever, and probably œdema of the perineum, bowel disturbance with pain intensified by deep pressure, and if interference is not permitted, fluctuation completes the picture of this disease. There is one more symptom which I do not see mentioned by writers on this subject, and that is the significance of small, cutaneous abscesses or feruncles in the perineum.

These frequently precede extensive breaking down of tissue in the pelvis, and are caused by the imperfect circulation and mal-nutrition which accompany the predisposing causes mentioned above.

TREATMENT :—Prompt and free evacuation with thorough irrigation (bi-chloride 1:2000 followed by hot water) the establishment of drainage, rest to the part with good nutrition and tonics, will in many cases avert the fistula.

The same rule applies to all these cases with reference to evacuation and irrigation, although drainage must be established in the marginal and ischio-rectal abscesses by very loose packing, the reason being that prompt repair is sought ; but in the superior-pelvic-rectal abscess burrowing is so dangerous and the discharge usually so free, that after very free incision, drainage must be maintained by large tubes or by frequent packing at the hazard of producing a fistulous tract with a firm indolent lining.

When a fistula of this character is encountered it will be of the variety termed external, which means the upper end of the tract is separated from the bowel by a layer of healthy tissue, and in all recent cases the tract will be single, in which case free division of the lining membrane by a long narrow knife or by the fistulatome will encourage the development of granulation tissue, with an occlusion of the tract.

This treatment may appropriately be applied to all single and incomplete external fistulous tracts and permanent relief will be attained in the vast majority of cases.

The tract of the subcutaneous fistula which follows the marginal abscess and presents an internal opening low down in the bowel, should be followed to its internal opening by a flexible grooved director; the director should then be brought through the anal orifice and the over-lying tissues divided, the base curretted, additional sinuses dilligently sought and laid open, when the entire wound may be carefully apposed by catgut sutures and and primary union gained.

A valuable aid in this procedure is the tampon-canula, or gauze-covered rubber tube in the rectum, which aids in securing rest to the parts and affords an aseptic dressing for the wound in the bowel.

We have remaining the fistula with multiple tracts complete or incomplete, originating in the ischio-rectal or superior-pelvic-rectal regions, and attended by every variety of constitutional dyscrasia.

As a rule it is wise to follow the main channel to the bowel, completing the tract if the internal opening cannot be found.

In the absence of pus in the rectum which strongly suggests an internal opening, the injection of milk or any colored

fluid should be done while the sphincter is at rest—since stretching the orifice so changes the relation of the parts that the tract will be occluded; freely incising all tissue tunneled by the probe, making the cut perpendicular to the sphincter, locating and incising all lateral tracts.

When this is done the wound should be irrigated, detached shreds removed, overlying cutaneous edges cut away, and the cavity loosely packed.

The after treatment is highly important, in that small pockets of pus may accumulate near the extremities of the wound or in the irregular base, and a failure ensue. The preventive means are loose packing to the bottom with daily irrigation and examination of the base of the wound. A blunt instrument through the wound at each dressing will avert the disaster and will not retard repair.

When the reparative power of the patient or the extensive inroads of the disease do not warrant such a radical procedure, a wise course to adopt is to pack the main sinus or stretch, if necessary, the chief tract, and freely irrigate with a stimulating or antiseptic solution until the lateral sinuses are healed or the inroads of the disease so abridged that a radical operation may be confidently counseled.

Indeed this palliative plan will often prove very gratifying when the patient's

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fancy or physical condition absolutely forbid operative measures.

In the horse-shoe fistula the branching tracts should as far as possible be opened into one main tract, even though more than one operation is necessary, then the main passage may be repaired by a single incision of the sphincter.

Upon the management of the patient after an operation about the rectum depends largely the success of the undertaking.

Rest in bed is imperative in all cases except in advanced tubercular subjects who require some exercise to maintain the reparative power.

Firm dressing should be used to aid in controlling muscular spasm, and the value of sulphonal in this indication I find, has not disappointed my claims put forth over three years ago for this drug.

Cough should be controlled on account of its disturbance of the levator ani, appropriate tonics used, the bowels kept free after the second day, and every surgical detail be accompanied by scrupulous aseptic management.

The following cases seen within the last twelve months illustrate some of the points in the history of superior-pelvic-rectal abscess.

T. F., *act.* 20, single; history, tubercular. Presented with a large abscess

showing some perineal œdema and fullness, and some induration over Poupart's ligament on the left side and in the lumbar regions. Temperature 101° , expiration prolonged on left side apex; no cough.

Free incision revealed a small amount of pus; irrigation and packing was followed by some improvement. A chill, high temperature, and a rapid development of a painful induration in left inguinal region was noted, and the perineum was freely laid open and explored, the superior abscess cavity drained, and uninterrupted recovery followed.

The deep packing and frequent irrigations during convalescence left a straight sinus with a hard lining membrane which was incised with fistulatome, prompt and complete repair following.

T. P., *aet.* 34, married, negative history. Presented with a deep pelvic abscess which developed six months after a successful appendectomy.

The abscess was freely opened and curetted, tubercle bacilli being found in the soft tissue removed by the curette. Copious discharge followed although good drainage and frequent irrigation was kept up. When repair had progressed sufficiently the patient was sent to the coast for a few months, returning entirely well.

When these abscesses are large and show a tendency to burrow above Poupart's ligament or through the sciatic notch, they should be evacuated at these points, although the perineum generally allows of freer drainage, and promises a more rapid repair.

